

REMARKS

Claims 1-24 remain pending in this application.

The Examiner rejected claims 1-3, 8-10, 15, 16, 19-21, and 24 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,477,249 (*Williamson*) in view of U.S. patent No. 6,625,278 (*Hendricks*) and further in view of U.S. Patent No. 5,802,169 (*Frantz*). Applicants respectfully traverse this rejection.

Claim 19 is discussed herein because it is the claim discussed by the Examiner in the Office Action. Claim 19 is directed to an apparatus for supporting transmission of signals carrying voice and data on a subscriber line. The apparatus comprises a subscriber line interface circuit adapted to receive an input signal having a voice, data, and DC component. Claim 19 further calls for a first filter adapted to filter at least a portion of the data component of the input signal to provide a filtered data signal and a second filter adapted to filter at least a portion of the DC component of the filtered data signal to provide a filtered signal. Claim 19 further calls for the subscriber line interface circuit to include a first loop that is adapted to adjust an input impedance of the apparatus to a first preselected value for the voice band in response to the filtered signal. Claim 19 further includes a digital signal processor comprising a second feedback loop adapted to adjust the input impedance of the apparatus from the first preselected value to a second preselected value and a third feedback loop adapted to adjust at least one of a magnitude and phase of the filtered signal to adjust the input impedance to a third value.

The Examiner appears to use claim 19 as a template to combine a multitude of prior art references to make a rejection under 35 U.S.C. §103. To establish a *prima facie* case of obviousness, three basic criteria must be met. First, the prior art reference (or references when

combined) must teach or suggest all the claim limitations. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (CCPA 1974). As discussed later, the Examiner fails to meet the first criteria because one or more of the claimed features are missing from the cited references.

Second, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. That is, there must be something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination. *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561 (Fed. Cir. 1986). In fact, the absence of a suggestion to combine is dispositive in an obviousness determination. *Gambro Lundia AB v. Baxter Healthcare Corp.*, 110 F.3d 1573 (Fed. Cir. 1997). The mere fact that the prior art can be combined or modified does not make the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990); M.P.E.P. § 2143.01. In the instant case, the Examiner arbitrarily and capriciously selects portions of no less than three references in an attempt to make a 35 U.S.C. §103 rejection. The Examiner fails to point to any requisite teachings or motivations in the prior art references to show the desired modifications; instead, the Examiner relies on unsubstantiated, general statements to allege that cited references can be combined in the manner desired.

Third, there must be a reasonable expectation of success. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991); M.P.E.P. § 2142. A recent Federal Circuit case emphasizes that, in an obviousness situation, the prior art must disclose each and every element of the claimed

invention, and that any motivation to combine or modify the prior art must be based upon a suggestion in the prior art. *In re Lee*, 61 U.S.P.Q.2d 143 (Fed. Cir. 2002). Conclusory statements regarding common knowledge and common sense are insufficient to support a finding of obviousness. *Id.* at 1434-35. In the instant case, the Examiner makes only conclusory statements in an attempt to establish a case of obviousness. Thus, the Examiner has failed to show that the references can be properly combined.

Even assuming *arugendo* that the prior art references can be properly combined, the purported combination nevertheless fails to teach one or more of the claimed features, as is required to establish a *prima facie* case of obviousness. For example, among other things, claim 19 calls for a first filter adapted to filter at least a portion of the data component of the input signal to provide a filtered data signal and a second filter adapted to filter at least a portion of the DC component of the filtered data signal to provide a filtered signal. Thus, claim 19 calls for filtering the DC component from the filtered data signal. The Examiner argues that the LPF of *Williamson* filters the data component to provide the filtered data signal. *See* Office Action, page 3. The Examiner, acknowledging that *Williamson* does not teach filtering the DC component from the filtered data signal, relies on *Frantz* to purportedly show the missing claimed feature. *Id.* at page 4. The Examiner argues that *Frantz* teaches removing DC signals from AC signals. *Id.* However, what the Examiner fails to appreciate is that *Frantz* does not teach that the AC signal is the filtered data signal (*i.e.*, the input signal from which at least a portion of the data component has been filtered). Accordingly, neither *Frantz*, nor any of the other references, teaches removing the data component from the input signal and thereafter removing DC component from the filtered data signal. Thus, for at least this reason, claim 19 is

allowable. It is noted that for claim 19 (or other claims), the order in which the components of input signal (e.g., data component, DC component) are filtered is not necessarily important but rather that at least the data and DC components be filtered from the input signal.

Claim 19 further calls for the subscriber line interface circuit to include a first loop that is adapted to adjust an input impedance of the apparatus to a first preselected value for the voice band in response to the filtered signal. The Examiner asserts that this claimed feature is taught by **Hendricks**, and in particular, by element 170 of Figure 1 of **Hendricks**. *See* page 3 of the Office Action. The term “filtered signal” referred to in this claimed feature refers to a signal from which at least a portion of the data component and the DC component is removed (see above discussion of the elements of claim 19). However, the Examiner admits that **Hendricks**, like **Williamson**, fails to teach a “filtered signal,” because neither **Hendricks** nor **Williamson** teaches a second filter that removes at least a portion of the DC component from the filtered data signal to provide a filtered signal. *Id.* As can be seen in the Office Action, the Examiner relies on **Frantz** to purportedly show the “filtered signal” as the claimed feature. *Id* at page 4. Thus, if **Hendricks** does not teach the claimed feature of “filtered signal,” as admitted by the Examiner, **Hendricks** likewise also cannot teach adjusting an input impedance to a first preselected value in response to the filtered signal. Moreover, as noted above, none of the cited prior art references, when considered alone or in combination, teaches the claimed feature of “filtered signal” (*i.e.*, the input signal from which at least a portion of the data component has been filtered and also the DC component has been filtered). Thus, for this additional reason, claim 19 is allowable.

The other independent claims are also allowable for one or more of the above reasons. The Office Action suffers from numerous other deficiencies, not all of which need to be

discussed herein in view of the above-noted shortcomings. Arguments with respect to other dependent claims have been noted. However, in view of the aforementioned arguments, these arguments are moot and therefore not specifically addressed. To the extent that characterizations of the prior art references or Applicants' claimed subject matter are not specifically addressed, it is to be understood that Applicants do not acquiesce to such characterization.

Unless the claim elements expressly employ the "means for" or "step for" language, all of the elements of the claims are expressed in non-means-plus or non-step-plus function form, and thus should not be construed according to 35 U.S.C. Section 112, paragraph 6.

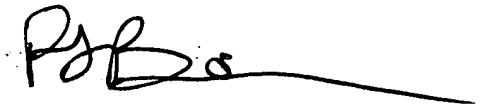
In light of the arguments presented above, Applicants respectfully assert that claims 1-24 are allowable. Accordingly, a Notice of Allowance is respectfully solicited.

If for any reason the Examiner finds the application other than in condition for allowance, the undersigned attorney hereby requests an interview with the Examiner to discuss the steps necessary for placing the application in condition for allowance.

Respectfully submitted,

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